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DFFE Reference: 14/12/16/3/3/2/2531 Enquiries: Ms. Matlhodi Mogorosi

Telephone: (012) 399 9388 E-mail: MMogorosi@dffe.gov.za

Mr. Alberto Gambacorta Biesjesvlei 2 (Pty) Ltd 5 Buitengracht Street 20th Floor, Portside Building Cape Town City Centre CAPE TOWN 8001

Telephone Number: (021)

(021) 202 1230

Email Address:

PER EMAIL / MAIL

Dear Mr Gambacorta

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE DEVELOPMENT OF THE UP TO 350MW BIESJESVLEI SOLAR PHOTOVOLTAIC FACILITY 2 AND ASSOCIATED INFRASTRUCTURE (i.e., BIESJESVLEI PV2) NEAR SMITHFIELD, WITHIN THE MOHOKARE LOCAL MUNICIPALITY IN THE FREE STATE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and the reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days from the date of the decision, as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful, and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further, your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing, and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of the National Environmental Management Act, Act No. 107 of 1998 National Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 per 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed.



DFFE Reference: 14/12/16/3/3/2/2531

APPROVAL OF ENVIRONMENTAL AUTHORISATION FOR THE DEVELOPMENT OF THE UP TO 350MW BIESJESVLEI SOLAR PHOTOVOLTAIC FACILITY 2 AND ASSOCIATED INFRASTRUCTURE (i.e., BIESJESVLEI PV2) NEAR SMITHFIELD, WITHIN THE MOHOKARE LOCAL MUNICIPALITY IN THE FREE STATE PROVINCE

Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below-mentioned addresses.

By email: appeals@dffe.gov.za

By hand: Environment House

473 Steve Biko Arcadia Pretoria 0083; or

By post: Private Bag X447

Pretoria 0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation, or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal authorisations or request a copy of the documents at appeals@dffe.gov.za.

Yours faithfully

Dr. Sabelo Malaza

Chief Director: Integrated Environmental Authorisations Department of Forestry, Fisheries and the Environment

Date: /O

CC:	Mr. Paul Lochner	Council for Scientific and Industrial Research (CSIR)	
	Ms. Grace Mkhosana	Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs	Email: mkhosana@destea.gov.za / mokoenad@destea.gov.za
	Mr. MJ Kanwendo	Mohokare Local Municipality	Email: info@mohokare.gov.za / kanwendoi@gmail.com

Batho pele- putting people first

DFFE Reference: 14/12/16/3/3/2/2531

APPROVAL OF ENVIRONMENTAL AUTHORISATION FOR THE DEVELOPMENT OF THE UP TO 350MW BIESJESVLEI SOLAR PHOTOVOLTAIC FACILITY 2 AND ASSOCIATED INFRASTRUCTURE (i.e., BIESJESVLEI PV2) NEAR SMITHFIELD, WITHIN THE MOHOKARE

LOCAL MUNICIPALITY IN THE FREE STATE PROVINCE



Environmental Authorisation

In terms of Regulation 25 of the NEMA Environmental Impact Assessment Regulations, 2014, as amended.

The development of the up to 350MW Biesjesvlei Solar Photovoltaic Facility 2 (i.e., Biesjesvlei PV2) and associated infrastructure near Smithfield, within the Mohokare Local Municipality in the Free State

Province

Xhariep District Municipality

Authorisation register number:	14/12/16/3/3/2/2531
Last amended:	First issue
Holder of authorisation:	Biesjesvlei 2 (Pty) Ltd
Location of activity:	Biesjesvlei PV2 and associated infrastructure:
	Remaining Extent of Farm Biesjespoort 521 – Remaining
	Extent
	Farm Benoni 534 – Portion 0
	Farm Klein Badfontein 369 – Portion 0
	Farm Paalland 373 – Portion 0
	Farm Salpetervlei 756 – Portion 0
	Farm Ronde Bult 408 – Portion 0
	Farm Modderkuil 396 – Portion 0
	Farm Biesjesvlei 372 – Portion 0
	Portion 1 of Farm Schoemanskraal 34 – Portion 1
	Access Road Option A:

Farm Salpetervlei 756 - Portion 0

Farm Paalland 373 - Portion 0

Access Road Option B:

Farm Benoni 534 - Portion 0

Farm Klein Badfontein 369 - Portion 0

Farm Paalland 373 - Portion 0

Access Road Option C:

Remaining Extent of Farm Biesjespoort 521 – Remaining

Extent

Farm Benoni 534 -- Portion 0

Farm Klein Badfontein 369 - Portion 0

Farm Paalland 373 - Portion 0

Intersection Widening:

Farm Benoni 534 - Portion 0

Remaining Extent of Farm Biesjespoort 521 - Remaining

Extent

Portion 1 of Farm Biesjespoort 521 – Portion 1

Remaining Extent of Farm Elizabethfontein 374 -

Remaining Extent

Farm Klein Badfontein 369 - Portion 0

Farm Salpetervlei 756 - Portion 0

Remaining Extent of Klein Sevenfontein 156 -

Remaining Extent

Mohokare Local Municipality

Xhariep District Municipality

Free State Province

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the

conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activities

specified below.

Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other

actions provided for in the National Environmental Management Act, Act No. 107 of 1998, as amended and the

EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, Act No. 107 of 1998, as

amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby

authorises -

BIESJESVLEI 2 (PTY) LTD

(hereafter referred to as the holder of the authorisation)

with the following contact details -

Mr. Alberto Gambacorta

5 Buitengracht Street

20th Floor, Portside Building

Cape Town City Centre

CAPE TOWN

8001

Telephone Number:

021 202 1230

Email Address:

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 of the NEMA EIA Regulations, 2014 as amended:

Activity number	Activity description
Listing Notice 1, Item 11(i)	
"The development of facilities or infrastructure for the transmission and distribution of electricity (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."	The proposed project will entail the construction of an Independent Power Producer (IPP) Substation for the Battery Energy Storage System (BESS), which will be maintained by the IPP. This is referred to as the BESS IPP Substation, which will have a capacity stepping up from 33kV to 132kV. This constitutes facilities for the distribution and transmission of electricity.
	The proposed project will take place outside of an urban area. It will be constructed on various affected farm portions, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province.
Listing Notice 1, Item 12(ii)(a)(c)	
"The development of-	The proposed project will entail the construction
(ii) infrastructure or structures with a physical footprint of	of various infrastructure and structures (such as,
100 square metres or more;	but not limited to, the BESS facility; units;
where such development occurs-	laydown area; BESS IPP Substation; laydown
(a) within a watercourse;	area for the BESS IPP Substation; BESS
(c) if no development setback exists, within 32 metres of a	Operational and Maintenance (O&M) Office,
watercourse, measured from the edge of a watercourse."	including Ablutions; access roads; internal
	roads; various MV to HV cables; fencing and
	security; and parking area etc.).
	Where existing or new access roads cross drainage features, new culverts, bridges or crossing structures will also be required. Such

Activity number	Activity description
	infrastructure across the drainage features will have a minimum footprint of 150m ² .
	The total footprint of the BESS facility extends approximately 10ha, within which the various infrastructure and structures will be constructed. These infrastructure and structures will exceed a footprint of 100m², and some occur within small drainage features, watercourses, and wetlands, and within 32m of these aquatic features, which have been delineated by the aquatic specialist.
	The proposed project will take place outside of an urban area. It will be constructed on various affected farm portions, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province.
Listing Notice 1, Item 19 "The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse".	The proposed project will entail the excavation, removal and moving of more than 10m³ of soil, sand, pebbles or rock from nearby small drainage features, watercourses, and wetlands. The proposed project will also entail the infilling of more than 10m³ of material into the nearby aquatic features. The aquatic features have been delineated by the aquatic specialist. This will occur as a result of development of the proposed BESS facility and associated infrastructure, including the development of access roads and internal roads, and drainage line crossings.



Activity number	Activity description
Listing Notice 1, Item 24(ii)	
"The development of a road -	Where existing or new access roads cross
(ii) with reserve wider than 13,5 meters, or where no	drainage features, new culverts, bridges or
reserve exists where the road is wider than 8 meters."	crossing structures will also be required along
	Access Route Option A, Access Route Option B
	and Access Route Option C. The concrete slab
	of the bridge / structure will be a minimum of
	5.5m and will have approximately 3m wide
	gabion mattresses on either side. Hence the
	structure will have a minimum width of 11 to
	12m.
Listing Notice 1, Item 27	
"The clearance of an area of 1 hectares or more, but less	The proposed BESS facility, which will contain
than 20 hectares of indigenous vegetation."	various sub-components and associated
	infrastructure, will have a footprint in excess of
	Tha but less than 20ha (i.e. total footprint of
	approximately 10ha). As a result, approximately
	10ha of indigenous vegetation will be removed
	for the construction of the proposed BESS
	facility and associated infrastructure. According
	to Mucina & Rutherford (2006, as amended), the
	study area and proposed project falls within
	Aliwal North Dry Grassland (Gh2) vegetation
	, , , ,
Listing Notice 1, Item 28(ii)	type.
"Residential, mixed, retail, commercial, industrial or	The proposed project will take place outside o
institutional developments where such land was used for	an urban area. It will be constructed on various
agriculture, game farming, equestrian purposes or	affected farm portions, north-west of the town o
afforestation on or after 01 April 1998 and where such	Smithfield, in the Mohokare Local Municipality
·	and Xhariep District Municipality, in the Free
development:	
(ii) will occur outside an urban area, where the total land to	State Province. The land within the study area is
be developed is bigger than 1 hectare."	currently being used for livestock grazing and
	agriculture.



Activity number Activity description The proposed BESS facility, which is considered a commercial/industrial development, will have a footprint in excess of 1ha (total footprint of approximately 10ha). The proposed project will also entail the construction of various infrastructure and structures (such as the BESS facility; units; laydown area; BESS IPP Substation; laydown area for the BESS IPP Substation; BESS Operational and Maintenance (O&M) Office, including ablutions; access roads; internal roads; various MV to HV cables; fencing and security; and parking area etc.). This will constitute infrastructure with a physical footprint of more than 1ha. Listing Notice 1, Item 48(i)(a)(c) "The expansion of-The proposed project study area can be (i) infrastructure or structures where the physical footprint accessed via various existing main roads and is expanded by 100 square metres or more; gravel roads. Specifically, three access route options have been considered: Access Route where such expansion occurs-(a) within a watercourse: Option A. Option B and Option C, which are (c) if no development setback exists, within 32 metres of a routed along the N6; S1262; and S119. Access watercourse, measured from the edge of a watercourse." Route Options A, B and C have different access points off the S119. Direct access to the proposed project will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.

Activity number	Activity description
	The Traffic Specialist has noted that the N6,
	S1262, and S119 roads leading to the study
	area are of a sufficient width to accommodate
	truck movement, however widening will be
	required at localised positions (i.e.
	intersections). Such widening is discussed
	below:
	• Intersection S1262 and S119: Road
	widening by approximately 9m (at the widest
	point) (approximately 400m²) will be
	required at this intersection.
	• Intersection S119 and Access Route
	Option A: Road widening by approximately
	14m (at the widest point) (approximately
	800m²) will be required at this intersection.
	• Intersection S119 and Access Route
	Option B: Road widening by approximately
	7m (at the widest point) (approximately
	200m²) will be required at this intersection.
	• Intersection S119 and Access Route
	Option C: Road widening by approximately
	14m (at the widest point) (approximately
	450m²) will be required at this intersection.
	Therefore, the intersection widening is regarded
	as expansion of infrastructure by more than
	100m ² . In addition, the existing cement bridge
	along Access Route Option A is approximately
	3m wide. The bridge structure will need to be
	widened to approximately 15m (including
	gabion structures), which is regarded as
	expansion of infrastructure by more than 100m ²

Activity number	Activity description
	The intersection widening and bridge widening
	will occur within small drainage features,
	watercourses, and wetlands, and within 32m of
	these aquatic features, which have been
	delineated by the aquatic specialist.
Listing Notice 1, Item 56(i)	
"The widening of a road by more than 6 metres, or the	The proposed project study area can be
lengthening of a road by more than 1 kilometre-	accessed via various existing main roads and
(i) where the existing reserve is wider than 13,5 meters."	gravel roads. Specifically, three access route
	options have been considered: Access Route
	Option A, Option B and Option C, which are
	routed along the N6; S1262; and S119. Access
	Route Options A, B and C have different access
	points off the S119. Direct access to the
	proposed project will be taken from the S119
	along an existing farm access point, and
	thereafter new access roads will be developed
	within the study area, where they do not align
	with existing roads, or existing roads will be
	used where possible. Existing roads will be used
	as far as practically achievable.
	The Traffic Specialist has noted that the N6,
	S1262, and S119 roads leading to the study
	area are of a sufficient width to accommodate
	truck movement, however widening will be
	required at localised positions (i.e.
	intersections). Such widening is discussed
	below:
	• Intersection S1262 and S119: Road
	widening by approximately 9m (at the widest
	point) (approximately 400m²) will be
	required at this intersection.

Activity number	Activity description
	 Intersection S119 and Access Route Option A: Road widening by approximately 14m (at the widest point) (approximately 800m²) will be required at this intersection. The road widening will exceed 6m in this regard. Intersection S119 and Access Route Option B: Road widening by approximately 7m (at the widest point) (approximately 200m²) will be required at this intersection. The road widening will exceed 6m in this regard. Intersection S119 and Access Route Option C: Road widening by approximately 14m (at the widest point) (approximately 14m (at the widest point) (approximately 150m²) will be required at this intersection. The road widening will exceed 6m in this regard.
	In addition, the existing cement bridge along Access Route Option A is approximately 3m wide. The bridge structure will need to be widened to approximately 15m (including gabion structures), which is regarded as road widening by more than 6m. No road will need to be lengthened by more than 1km at these access routes.
Listing Notice 3, Item 10(b)(i)(hh) "The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers	The construction and operational phases of the proposed BESS Facility will require dangerous goods such as chemicals, fuels, oils, lubricants and solvents for general activities. This does not



Activity number Activity description with a combined capacity of 30 but not exceeding 80 cubic apply to the actual BESS Facility, as a solid state BESS is proposed. Therefore, infrastructure for metres: (b) In the Free State; the storage and handling of dangerous goods of (i) Areas outside urban areas; 30m³ or more but not exceeding 80m³ is (hh) Areas within a watercourse or wetland; or within 100 proposed. metres from the edge of a watercourse or wetland." Dangerous goods will be stored on site within designated areas such as laydown areas. The laydown area is located within 100m of small drainage features, watercourses, and wetlands, which have been delineated by the aquatic specialist. Listing Notice 3, Item 12(b)(iv) "The clearance of an area of 300 square metres or The proposed BESS facility and associated more of indigenous vegetation, infrastructure will have an estimated footprint of approximately 10ha and will take place in the (b) In the Free State; (iv) Areas within a watercourse or wetland; or within 100 Free State. The proposed project will entail the construction of various infrastructure and metres from the edge of a watercourse or wetland." structures (such as, but not limited to, the BESS facility; units; laydown area; BESS IPP Substation; laydown area for the BESS IPP Substation; BESS Operational and Maintenance (O&M) Office, including Ablutions; access roads; internal roads; various MV to HV cables; fencing and security; and parking area etc.). Where existing or new access roads cross drainage features, new culverts, bridges or crossing structures will also be required. Some of these infrastructure and structures will occur within small drainage features, watercourses, and wetlands, and within 100m of these aquatic features, which have been delineated by the

aquatic specialist.

Activity number	Activity description
	As a result, more than 300m ² of indigenous vegetation will be removed from these areas for the construction of the proposed BESS Facility and associated infrastructure.
Listing Notice 3, Item 18(b)(i)(hh) "The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. (b) In the Free State; (i) Outside urban areas; (th) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."	The proposed project will take place on various affected farm portions, outside of an urban area, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province. The proposed project study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed project will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used as far as practically achievable. The Traffic Specialist has noted that the N6, S1262, and S119 roads leading to the study area are of a sufficient width to accommodate truck movement, however widening will be



Activity number	Activity description
	intersections). Such widening is discussed
	below:
	• Intersection S1262 and S119: Road
	widening by approximately 9m (at the widest
	point) (approximately 400m2) will be
	required at this intersection. The road
	widening will exceed 4m in this regard.
	Intersection S119 and Access Route
	Option A: Road widening by approximately
	14m (at the widest point) (approximately
	800m²) will be required at this intersection
	The road widening will exceed 4m in this
	regard.
	Intersection S119 and Access Route
	Option B: Road widening by approximatel
	7m (at the widest point) (approximatel
	200m²) will be required at this intersection
	The road widening will exceed 4m in thi
	regard.
	Intersection S119 and Access Rout
	Option C: Road widening by approximatel
	14m (at the widest point) (approximate
	450m²) will be required at this intersection
	The road widening will exceed 4m in thi
	regard.
	In addition, the existing cement bridge alon
	Access Route Option A is approximately 3r
	wide. The bridge structure will need to be
	widened to approximately 15m (including
	gabion structures), which is regarded as road
	widening by more than 4m. No road will need to

Activity number	Activity description		
	be lengthened by more than 1km at these access routes.		
	The intersection widening and bridge widening will occur within small drainage features, watercourses, and wetlands, and within 100m of these aquatic features, which have been delineated by the aquatic specialist.		

As described in the Environmental Impact Assessment Report (EIAR) dated September 2024 at:

Farm portions and SG codes for the Study Area:

Farm Portion	SG Code	
Farm Benoni 534	F0310000000053400000	
Remaining Extent of Farm Biesjespoort 521	F0310000000052100000	
Farm Biesjesvlei 372	F03100000000037200000	
Farm Klein Badfontein 369	F0310000000036900000	
Farm Modderkuil 396	F0310000000039600000	
Farm Paalland 373	F0310000000037300000	
Remaining Extent of Farm Pompoenfontein 118	F0310000000011800000	
Portion 1 of Farm Pompoenfontein 118	F0310000000011800001	
Farm Ronde Bult 408	F03100000000040800000	
Farm Salpetervlei 756	F0310000000075600000	
Portion 1 of Farm Schoemanskraal 34	F0310000000003400001	

Affected Farm Properties for Biesjesvlei PV2 and associated infrastructure (Project 2):

Farm Portion	21-digit Surveyor General code	
PV Facility and associated infrastructure within the fenced off area		
Remaining Extent of Farm Biesjespoort 521	F0310000000052100000	
Farm Benoni 534	F0310000000053400000	
Farm Klein Badfontein 369	F0310000000036900000	
Farm Paalland 373	F0310000000037300000	
Farm Salpetervlei 756	F0310000000075600000	
Farm Ronde Bult 408	F0310000000040800000	
Farm Modderkuil 396	F0310000000039600000	
Farm Biesjesvlei 372	F0310000000037200000	



Farm Portion	21-digit Surveyor General code	
Portion 1 of Farm Schoemanskraal 34	F0310000000003400001	
Access Road O	ption A	
Farm Salpetervlei 756	F0310000000075600000	
Farm Paalland 373	F0310000000037300000	
Access Road O	ption B	
Farm Benoni 534	F0310000000053400000	
Farm Klein Badfontein 369	F0310000000036900000	
Farm Paalland 373	F0310000000037300000	
Access Road O	ption C	
Remaining Extent of Farm Biesjespoort 521	F0310000000052100000	
Farm Benoni 534	F0310000000053400000	
Farm Klein Badfontein 369	F0310000000036900000	
Farm Paalland 373	F0310000000037300000	
Widening of Existing Ro	ad Intersections	
Farm Benoni 534	F0310000000053400000	
Remaining Extent of Farm Biesjespoort 521	F0310000000052100000	
Portion 1 of Farm Biesjespoort 521	F0310000000052100001	
Remaining Extent of Farm Elizabethfontein 374	F0310000000037400000	
Farm Klein Badfontein 369	F0310000000036900000	
Farm Salpetervlei 756	F0310000000075600000	
Remaining Extent of Klein Sevenfontein 156	F0310000000015600000	

Co-ordinates for Biesjesvlei PV2 and associated infrastructure (Project 2):

Co-ordinate	Decimal Degrees		Degrees, Minutes, Seconds	
Point	Latitude (Y)	Longitude (X)	Latitude (S)	Longitude (E)
	PV Facility and associated infrastructure within the fenced off area			off area
Corner Point 1	-30.11631471	26.34200659	30° 06' 58.73296320" S	26° 20' 31.22372400" E
Corner Point 2	-30.12350791	26.3600058	30° 07' 24.62849040" S	26° 21' 36.02088000" E
Corner Point 3	-30.14235773	26.35754039	30° 08' 32.48784600" S	26° 21' 27.14539320" E
Corner Point 4	-30.14033826	26.36543289	30° 08' 25.21773600" S	26° 21' 55.55840400" E
Corner Point 5	-30.1216757	26.36534754	30° 07' 18.03250920" S	26° 21' 55.25114400" E
Corner Point 6	-30.12339684	26.37414335	30° 07' 24.22862400" S	26° 22' 26.91607080" E
Corner Point 7	-30.11808821	26.39872622	30° 07' 05.11756680" S	26° 23' 55.41440280" E
Corner Point 8	-30.10972212	26.39522504	30° 06' 34.99962840" S	26° 23' 42.81012960" E
Corner Point 9	-30.11160551	26.37657694	30° 06' 41.77985040" \$	26° 22' 35.67697320" E
Corner Point 10	-30.1161691	26.37246427	30° 06' 58.20877080" S	26° 22' 20.87137920" E
		PV Facility IP	P Substation	
Corner Point 1	-30.11632176	26.3686682	30° 06' 58.75833733" S	26° 22' 07.20550808" E
Corner Point 2	-30.11632925	26.37022517	30° 06' 58.78531799" S	26° 22′ 12.81060340" E



Co-ordinate Decimal Degrees		Degrees, Minutes, Seconds		
Point	Latitude (Y)	Longitude (X)	Latitude (S)	Longitude (E)
Corner Point 3	-30.11767743	26.37021662	30° 07' 03.63873360" S	26° 22' 12.77981400" E
Corner Point 4	-30.11766995	26.36865962	30° 07' 03.61182359" S	26° 22' 07.17463802" E
		Access Roa	d Option A	The Hall of the Hall of
Start-Point	-30.10215751	26.40774589	30° 06' 07.76702867" S	26° 24' 27.88519696" E
Mid-Point	-30.10967631	26.38279884	30° 06' 34.83470520" S	26° 22' 58.07583840" E
End-Point	-30.11767085	26.36884646	30° 07' 03.61505640" S	26° 22' 07.84725960" E
9 = 4		Access Roa	ad Option B	
Start-Point	-30.09332796	26.3885668	30° 05' 35.98065095" S	26° 23' 18.84049168" E
Mid-Point	-30.10404815	26.37116602	30° 06' 14.57332301" S	26° 22' 16.19768272" E
End-Point	-30.11767085	26.36884646	30° 07' 03.61505640" S	26° 22' 07.84725960" E
		Access Roa	nd Option C	
Start-Point	-30.08834041	26.37831337	30° 05' 18.02546520" S	26° 22' 41.92812120" E
Mid-Point	-30.10079365	26.37118663	30° 06' 02.85712442" S	26° 22' 16.27186086" E
End-Point	-30.11767085	26.36884646	30° 07' 03.61505640" S	26° 22' 07.84725960" E
	W	idening of Existing	Road Intersections	
Mid-Point (S1262/S119 intersection)	-30.10423498	26.4123598	30° 06′ 15.24592316″ S	026° 24' 44.49527212" E
Mid-Point (S119/Option A)	-30.10220739	26.40774196	30° 06' 07.94659649" S	026° 24' 27.87105360" E
Mid-Point (S119/Option B)	-30.09339592	26.38873086	30° 05' 36.22530598" S	026° 23' 19.43109165" E
Mid-Point (S119/Option C)	-30.08839031	26.37833609	30° 05' 18.20510587" S	026° 22' 42.00993312" E

for the development of the up to 350MW Biesjesvlei Solar Photovoltaic Facility 2 (i.e., Biesjesvlei PV 2) and associated infrastructure near Smithfield, within the Mohokare Local Municipality in the Free State Province, hereafter referred to as "the property".

The key components of the development are as follows:

- Solar field consisting of the PV array and panel mounting structures;
- Building infrastructure (such as Offices; Operational and maintenance (O&M) control centre; Warehouse / workshop; Ablution facilities; Converter / Inverter stations; and Guard Houses);
- PV Facility Independent Power Producer (IPP) Substation;
- On-site internal cables / power lines / cable trays;
- External access roads;



- Internal roads;
- Fencing;
- Panel maintenance and cleaning area;
- Storm water channels; and
- Laydown area.

Below is a table of the description of components for the <u>Biesjesvlei PV2 and Associated Infrastructure</u> (<u>Project 2</u>):

Component	Description	
Solar Field		
Type of Technology	Solar Photovoltaic (PV) Technology	
Generation Capacity (Maximum Installed)	■ Up to 350MWdc	
Total footprint that includes all associated infrastructure within the fenced off area of the PV facility (excluding access roads)	Maximum 600ha	
 PV Panel Structure (with the following possible tracking and mounting systems): Single Axis Tracking structures (aligned north-south); Fixed Axis Tracking (aligned east-west); Dual Axis Tracking (aligned east-west and north-south); Fixed Tilt Mounting Structure; or Bifacial Solar Modules. 	■ <u>Height</u> : Approximately 10m (maximum)	
Buildin	g Infrastructure	
Offices	 Maximum height: 7m 	
	■ <u>Footprint</u> : 1000m²	
Operational and maintenance (O&M) control centre	■ <u>Maximum height</u> : 7m	
	Footprint: 500m ²	
Warehouse / workshop	Maximum height: 7m	
	■ <u>Footprint</u> : 500m²	
Ablution facilities	■ Maximum height: 7m	



Component Description	
	■ Footprint: 50m²
Converter / Inverter stations	 Height: 2.5m to 7m (maximum)
	■ <u>Footprint</u> : 2500m²
Guard Houses	■ <u>Height</u> : 3m
	■ Footprint: 40m²
On-site substation and/or switching station. This will include the section that will be maintained by the Independent Power Producer (IPP).	 Footprint of the IPP Substation: Approximately 10 000m²
	■ Height: 10
	<u>Capacity</u> : 132kV
	 This section includes all the high voltage infrastructure leading up to the Point of Connection (i.e. the Project Applicant's section of the proposed on-site substation, which is also referred to the PV Facility IPP Substation).
Associa	ted Infrastructure
On-site medium voltage internal cables / power lines	Placement: Underground or above ground
	<u>Capacity</u> : 33kV
	Depth (if underground): Maximum depth of 1.6m
	Height (if aboveground): Maximum height of 9m
Underground low voltage cables or cable trays	Depth: Maximum depth of 1.4m
External Access Roads	The study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed projects will be



Component	Description
	taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.
	 New Access Roads: Where new access roads are required within the study area, these will be 4 - 8m wide.
	 <u>Existing Access Roads</u>: Where existing roads are used within the study area, they may need to be upgraded, as described below.
	The Traffic Specialist has noted the following:
	o The N6, S1262, and S119 are of a sufficient width to accommodate truck movement, however widening by more than 4 m or more than 6 m will be required at localised positions (i.e. intersections). Specifically, road widening by approximately 9 m will be required at the S1262 and S119 intersection. In addition, the N6 and S1262 intersection will need to be widened by approximately 2 m on the western side of the intersection and by approximately 2 m on the eastern side of the intersection.
	 Existing internal farm roads (local farm roads within the farm property boundaries) will need to be upgraded to accommodate the abnormal loads as required. This includes the following:
	 Intersection S119 and Access Route Option A: Road widening by approximately 14 m (at the widest point) will be required.
	 Intersection S119 and Access Route Option B: Road widening by



Component	Description
	approximately 7 m (at the widest point) will be required.
	Intersection S119 and Access Route Option C: Road widening by approximately 14 m (at the widest point) will be required.
	 The existing bridge on the S119 will also need to be inspected by a Structural Engineer.
	 The existing bridge on the existing internal farm road along Access Route Option A will need to be rebuilt/upgraded or realigned to minimise the turns that the abnormal loads need to navigate, if this access route is used for the proposed projects.
	 A new bridge will need to be developed along Access Route Option B, if this option is used for the proposed projects.
	 A new bridge will need to be developed along Access Route Option C, if this option is used for the proposed projects.
Internal roads	Details: New internal gravel roads will need to be established within the fenced off area of the PV facility.
	■ <u>Width</u> : Up to 4m
Fencing around the PV Facility Perimeter	 Type: Palisade or mesh or fully electrified Security: Access points will be managed and monitored by an appointed security service provider.
	■ <u>Height</u> : Between 2 - 3m



Component	Description	
Panel maintenance and cleaning area	 A dedicated panel maintenance and cleaning area will be required on site during the operational phase. 	
Storm water channels	 Details to be confirmed once the Engineering, Procurement and Construction (EPC) contractor has been selected and the design is finalised. Where necessary, a detailed storm water management plan would need to be developed. 	
Work area during the construction phase (i.e. laydown area)	Footprint: Up to 13ha.	
Water Requirements	 Approximately 8 520m³ to 12 000m³ of water is estimated to be required per year for the construction phase. 	
	 Approximately 10 000m³ to 16 000m³ of water is estimated to be required per year for the operational phase. 	
	 Water requirements during the decommissioning phase are expected to be the same as the construction phase. 	
	 Potential sources: Existing boreholes on site or from the Local Municipality via trucks. 	
Construction Period	■ 12 – 24 months	
Operational Period	 Once the commercial operation date is achieved, the proposed facility will generate electricity for a minimum period of 20 to 30 years. 	



Conditions of this Environmental Authorisation

Scope of authorisation

- The development of the up to 350MW Biesjesvlei Solar Photovoltaic Facility 2 and associated infrastructure (i.e., Biesjesvlei PV 2) near Smithfield, within Ward 41603006 of the Mohokare Local Municipality in the Free State Province, is approved as per the geographic coordinates cited in the tables above.
- 2. Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
- 3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
- 4. The activities authorised must only be carried out at the property as described above.
- 5. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.
- 6. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
- This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If the commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.
- 8. Construction must be completed within five (05) years of the commencement of the activity on site. The continuation of any such activities after the lapsing of the above-mentioned period may trigger one or more listed and/or specified activities, including activity 32 of LN1. Such continuation without the required environmental authorisation will constitute an offence or offences in terms of section 49A(1)(a) read with section 24F(1)(a) of NEMA.

 Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

- 10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
- 11. The notification referred to must
 - 11.1. specify the date on which the authorisation was issued;
 - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 11.4. Give the reasons of the Competent Authority for the decision.

Commencement of the activity

12. The authorised activity must not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

- 13. The combined project layout plan attached as Figure D in Appendix D of the final EIAr and labelled "Final Layout Map for the proposed Biesjesvlei Solar PV Facility 2; Biesjesvlei BESS 2; and Biesjesvlei EGI 2 (including the Biesjesvlei MTS and LILO for context), near Smithfield in the Free State" for the up to 350MW Biesjesvlei Solar PV Facility 2 (i.e., Biesjesvlei PV2) and associated infrastructure, is approved.
- 14. The Environmental Management Programme (EMPr) for the Biesjesvlei Solar Photovoltaic Facility 2 (i.e., Biesjesvlei PV 2) and associated infrastructure, submitted as part of the ElAr dated September 2024 is approved and must be implemented and adhered to.

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- 15. The Generic Environmental Management Programme (EMPr), "for the development and expansion of substation infrastructure for the transmission and distribution of electricity" for the up to 132kV PV Facility IPP Substation Hub/Complex, specifically Part C: Site Specific Environmental Attributes, dated 10 September 2024 submitted as part of the final EIAr, is approved and must be implemented and adhered to.
- 16. The EMPrs must be implemented and strictly enforced during all phases of the project. They shall be seen as dynamic documents and shall be included in all contract documentation for all phases of the development when approved.
- 17. Changes to the approved EMPrs must be submitted in accordance with the EIA Regulations applicable at the time.
- 18. The Department reserves the right to amend the approved EMPrs should any impacts that were not anticipated or covered in the EIAr be discovered.

Frequency and process of updating the EMPr

- 19. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 26 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
- 20. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
- 21. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, before submission of the updated EMPr to the Department for approval.
- 22. In assessing whether to approve an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
- 23. The holder of the authorisation must apply for an amendment of an EMPr if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure

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plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

- 24. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPrs.
 - 24.1. The ECO must be appointed before the commencement of any authorised activities.
 - 24.2. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department.
 - 24.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 24.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

- 25. All documentation e.g., audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
- 26. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPrs remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPrs are audited and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
- 27. The frequency of auditing and submission of the environmental audit reports must be as per the frequency indicated in the EMPrs, considering the processes for such auditing as prescribed in Regulation 34 of the NEMA EIA Regulations, 2014 as amended.
- 28. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e., within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
- 29. The environmental audit reports must be compiled in accordance with Appendix 7 of the NEMA EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the

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- outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPrs.
- 30. Records relating to monitoring and auditing must be kept on-site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

31. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

32. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

33. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

Specific conditions

- 34. No activities, which require a water use license, must be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation.
- 35. The 19m buffer zone identified by the Aquatic Specialist must be applied between the main PV layouts and delineated wetlands to ensure that these watercourses are avoided.
- 36. A permit must be obtained from the relevant Department for the removal or destruction of indigenous, protected, or endangered plant or animal species (if any) and a copy of such permit/s must be submitted to the Department for record keeping.
- 37. No exotic plants may be used for rehabilitation purposes. Only indigenous plants of the area may be utilised.

- 38. Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.
- 39. The washing of panels during maintenance must be done with biodegradable soaps to avoid soil contamination.
- 40. The two small cemeteries (at waypoints 345 & 1643) must be fenced with a farm-style fence and pedestrian gate at least 5m from all grave dressings.
- 41. All heritage sites within 50m of the footprint areas must be marked with no-go signage.
- 42. If any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell, and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are uncovered during construction, work in the immediate area must be halted, and the Heritage Authorities must be alerted immediately, and a professional archaeologist or palaeontologist (depending on the nature of the finds) must be contacted as soon as possible to inspect the findings.
- 43. Ensure that the necessary permits or approvals from the relevant road authority are in place for the widening of identified intersections to accommodate the turning movements of the abnormal load vehicles.
- 44. Construction must include design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of stormwater run-off.
- An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, reuse, and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of Section 20 (b) of the National Environment Management Waste Act, 2008 (Act No.59 of 2008).

General

- 46. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPrs must be made available for inspection and copying-
 - 46.1. at the site of the authorised activity;
 - 46.2. to anyone on request; and
 - 46.3. Where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
- National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages

or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of Environmental Authorisation: 10/11/2024

Dr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations

Department of Forestry, Fisheries & the Environment

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, inter alia, the following into consideration -

- a) The listed activities as applied for in the amended application form received by the Department on 12 September 2024.
- b) The information contained in the final EIAr dated September 2024.
- c) The comments received from interested and affected parties as included in the final EIAr dated September 2024.
- d) Mitigation measures as proposed in the final EIAr dated September 2024 and the EMPrs.
- e) The information contained in the specialist inputs contained within the Appendices of the final ElAr dated September 2024.
- f) The findings of the site visit undertaken on 07 November 2024.

2. Key factors considered in making the decision

All information presented to the Department was considered in the Department's consideration of the application.

A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist inputs conducted and their recommended mitigation measures.
- b) The need for the project stems from the provision of electricity to the national grid.
- c) The final EIA, dated September 2024, identified all legislation and guidelines that were considered in its preparation.
- d) The location of the proposed up to 350MW Biesjesvlei Solar Photovoltaic Facility 2 and associated infrastructure (i.e., Biesjesvlei PV2) which forms part of the "Biesjesvlei PV Facilities, BESS and EGI Cluster."
- e) The methodology used in assessing the potential impacts identified in the final ElAr dated September 2024 and the specialist inputs have been adequately indicated.
- f) A sufficient public participation process was undertaken, and the applicant has satisfied the minimum requirements as prescribed in the NEMA EIA Regulations, 2014 as amended for public involvement.



Findings

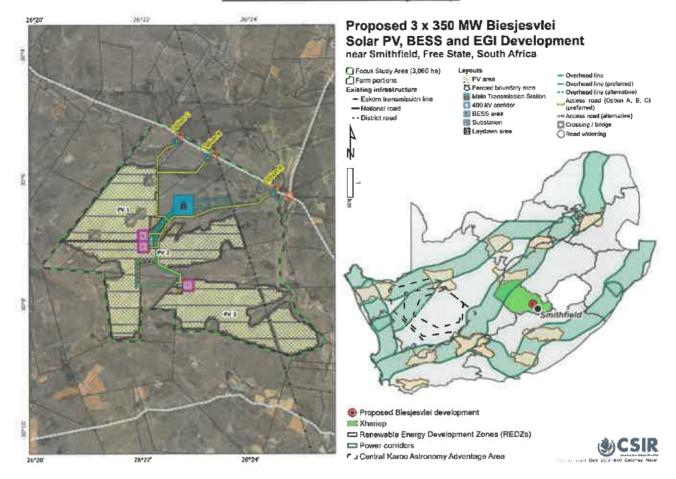
After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the final ElAr dated September 2024 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the final EIAr dated September 2024 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the final EIAr and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.



Annexure 2: Locality Map





Annexure 3: Project Layout Plan

